

NUX

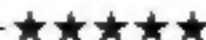
MG-20

GUITAR MODELING PROCESSOR

Thank you for purchasing the NUX MG-20 Guitar Modeling Processor!

MG-20 is one of the easiest guitar modeling processors. If you are familiar with traditional guitar rig, you may have known how to set tones in MG-20. It is also very convenient for live performance! From the panel, you can always see what effects are in the chain. To turn on and off effect modules or to assign functions to the CTRL switch and Expression pedal are quick and easy! We won't let you lose a beat!

In MG-20, NUX has brought the original TSAC Technology to a new level! It is equipped with 32bit float point DSP. The flow algorithm imitates every detail of the classic amps and effects. More than 80 effect models, plus various output modes, no matter what style you play, you'll have great tone on top!



What is TSAC?



TSAC (True Simulation of Analog Circuit) since 1980s. Musicians have been using analog devices to create their works. Musicians love the tone of mid-vintage instruments! The audio signal goes through various electronic components, such as resistors, capacitors, transistors and tubes. All these components affect each other to create the result-TONE! TSAC Technology virtually re-constructs the real analog circuits by using DSP chips, and accurately simulates the tone and feel of the vintage instruments!

Features

- ◆ Large 2.4 Inches Color TFT LCD
- ◆ Drum Machine and Looper
- ◆ Built-in Tuner
- ◆ Effects Module Buttons for Quick Tone Editing
- ◆ Expression Pedal
- CTRL Footswitch
- More than 80 Models
- 38 Factory Presets and 38 User Presets
- Various Output Modes
- USB for System Updating

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Accuracy

While every effort has been made to ensure the accuracy and content of this manual, Chenxi Technology Co. makes no representations or warranties regarding the contents.

nuxefx.com

Owner's Manual

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WARNING!-IMPORTANT SAFETY INSTRUCTIONS BEFORE CONNECTING, READ INSTRUCTIONS

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

CAUTION: To reduce the risk of fire or electric shock, do not remove screws. No user-serviceable parts inside. Refer servicing to qualified service personnel.

CAUTION: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



The lightning symbol within a triangle means "electrical caution." It indicates the presence of information about operating voltage and potential risk of electrical shock.

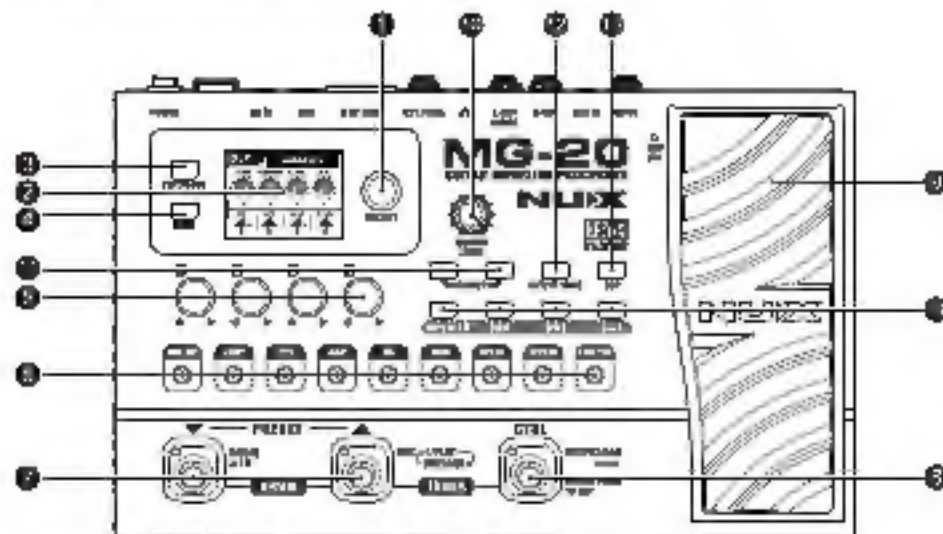


The exclamation point within a triangle means "caution." Please read the information next to all caution signs.

1. Use only the supplied power supply or power cord. Using other power supply may cause noise or even damage.
2. Do not place near heat sources, such as radiators, heat registers, or appliances which produce heat.
3. Guard against objects or liquids entering the enclosure.
4. Do not attempt to service the product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
5. Refer all servicing to qualified service personnel.
Servicing is required when the apparatus has been damaged in any way, such as when the power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
6. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
7. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and at the point where they exit from the apparatus.
8. Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening".

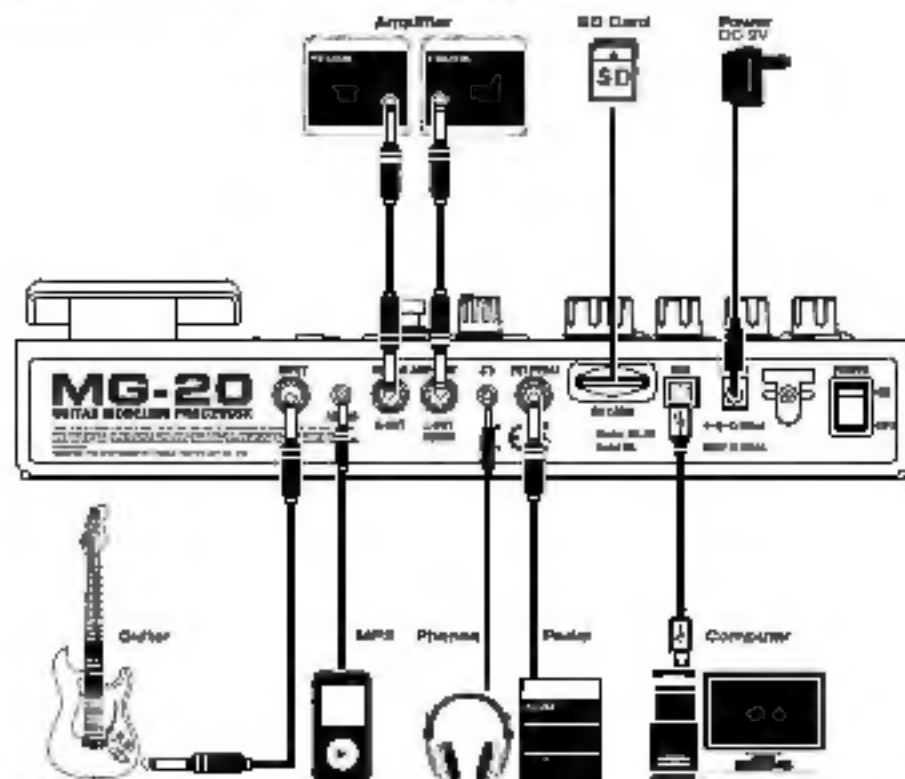
Follow all instructions and heed all warnings
KEEP THESE INSTRUCTIONS!

Front Panel Description



1. **SELECT knob**
Select effects, pages of presets, etc.
2. **DISPLAY**
It displays presets, effect control panels, drum & looper interface, and other setting pages.
3. **EDIT/SAVE button**
Press this button to enter Edit Mode and save presets.
4. **HOME button**
Press this button anytime to return to Preset Mode.
5. **PARAMETER knobs**
Use these knobs to set parameters of effects.
6. **EFFECTS MODULE BUTTONS**
The series of buttons are designed as the real guitar effects signal chain. Under Edit Mode, press any of these buttons to enter an effect module.
7. **PRESET footswitches**
Use these two switches to switch presets. Press both switches simultaneously to enter DRUM & L.OOP interface.
8. **CTRL footswitch**
This is a control pedal that can be set as switch for effects Dry/Wet, volume boost, MP3 Play/Stop or TAP tempo pedal.
9. **EXP/VOX pedal**
The pedal works as a Volume pedal or an Expression pedal to control other parameters, i.e. VIBR, WHA/HH, Modulation Speed etc.
10. **MASTER LEVEL knob**
This controls the master output volume of MG-20.
11. **GROUP buttons**
Use these two buttons to quickly switch bank number under Preset Mode.
12. **OUTPUT MODE button**
Press this any time to choose the device that you want to output the sound of MG-20 to. Choosing the right output mode helps to get better tone.
13. **TAP button**
Use this button to tap in the speed of modulation effects, delay, and drum tempo.
14. **MP3 buttons**

Connection Panel Description



- 1. INPUT**
Connect your guitar here.
- 2. AUX IN**
Plug in your music player or drum machine here. The sound will be played through MG-20's outputs.
- 3. R-OUT & L-OUT/MONO**
These are the main outputs that can be connected to amplifiers or mixers. Connect two amplifiers or for stereo effects. Use the L-OUT/MONO for mono effects.
- 4. HEADPHONE jack**
This is a stereo jack for headphones.
- 5. PEDAL jack**
You can plug an optional Cherub WTB-004 pedal to this jack to switch preset banks.
- 6. SD CARD slot**
You can insert an SD card and play the music from the SD card by the built-in MP3 Player of MG-20.
- 7. USB jack**
This is for system updating.
- 8. DC jack**
Plug the supplied Power Adaptor in this jack.
NOTE: Use ONLY the supplied adaptor or optional NUX AOC-008 Adaptor. Using other adaptor may cause noise or damage!
- 9. POWER switch**
Turn on and off the power of MG-20 by this switch.

Preset Mode & Edit Mode

The default mode when you turn on the power of MG-20 is Preset Mode.
Press **EDIT/SAVE** button enters Edit Mode. You can edit tones and save as user presets.

Press **HOME** button any time will return to Preset Mode.



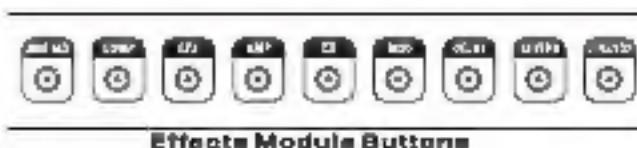
To Create Tones

Editing tones on MG-20 is as easy as setting normal stomp-boxes!

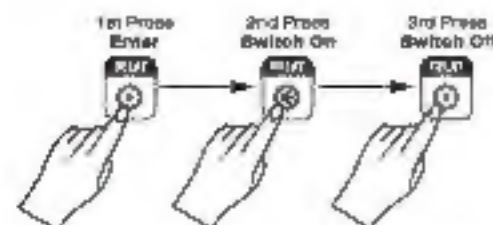
● Enter Edit Mode and Edit Effect Modules

Press **EDIT/SAVE** to enter Edit Mode.

MG-20 utilizes 5 **Effects Module Buttons** to show the guitar signal chain. Under Edit Mode, press any of these buttons once to enter corresponding effects module. Press this button again can switch this module on and the LED on the button is ON. The third press switches off this module and the LED on the button is OFF.



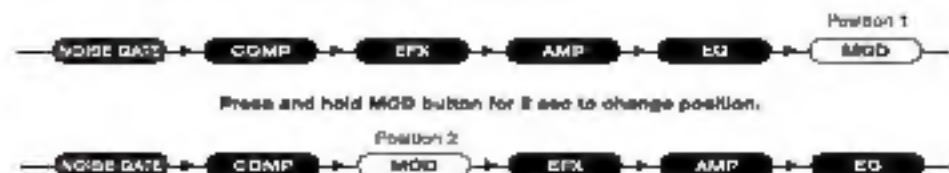
Effects Module Buttons



● Modulation Effects Position

The default position of MOD module (modulation effects) is behind EQ module. You can change the position of MOD to be before EFX.

Press and hold **MOD** button for 2 sec to change position. When **MOD** is positioned before **EFX**, The LED on the **MOD** button will be blinking when the MOD module is turned on.



NOTE: Stereo effects are not available when MOD is before EFX. MOD position will be saved to presets.

CTRL/EXP Pedal Function Setting

MG-20 has a CTRL control pedal and an EXP/VOL pedal that give you superb control on stage!

Press CTRL/EXP button to enter pedal function setting page. Press again to switch between CTRL and EXP expression pedal.



Use the SELECT knob to choose the function of the pedal.

Use the indicated parameter knobs to select sub-category or set parameters if there is.

CTRL Functions List

1. SWITCH	Set the CTRL as a footswitch to switch On/Off one of these effect modules: COMP, EFX, AMP, EQ, MOD, DELAY, REVERB. * The CTRL footswitch is mainly designed to recognize if you want it to be a latched switch or momentary switch.
2. TAP	Set the CTRL as a TAP Tempo pedal to set MOD Speed or Delay Time.
3. SOLO BOOST	Set the CTRL as a solo boost switch. You can use Parameter 4 knob to set the amount you want to boost the master volume when you switch on the CTRL.
4. DELAY + BOOST	Use the CTRL to switch on the delay effect and boost the master volume at the same time. Boost amount can be set.
5. MP3 PLAY/STOP	Set the CTRL as a PLAY/STOP switch of the built-in MP3 Player.

Press the top position of the EXP/VOL pedal down with a little force to switch it to be Volume pedal or Expression pedal. (The EXP LED lights up when it becomes Expression pedal)



EXP Functions List

1. WASH STANDARD	Set the expression pedal to be a standard Wash pedal.
2. WASH Q	Set the expression pedal to be a Wash pedal that you can set the Q value and sweeping range. Experience these settings to find your favorite Wash sound.
3. WHAMMY	Set the expression pedal to have pitch bending effect.
4. PARAMETER	Set the expression pedal to control these parameters: EFX DRIVE, AMP GAIN, MOD RATE, DELAY TIME.
5. MIN VOLUME	Set the minimum volume when you stomp the pedal to totally heel down position.

NOTE: The function and On/Off status of the CTRL switch and EXP/VOL pedal will be saved to presets.

To Save User Presets

Once you find the tone you like, you can save it as a user preset.

- Press and hold **EDIT/SAVE** button to enter Name Editing page.
- Use the **SELECT** knob or **PRESET** ▲/▼ footswitches to choose the preset number where you want to save to. Or use the **GROUP** buttons to quickly change group number.
- Use **PARAMETER 1** and **2** to edit the preset name. Turn **PARAMETER 1** knob clockwise to start editing the next letter (left -> right); turn it counterclockwise to delete the last letter.
- Turn **PARAMETER 2** knob to choose the letters.
- Press **EDIT/SAVE** to confirm saving, or press **HOME** to abandon changes.



To Use Presets

Under Preset Mode, you can choose presets by stomping on the **PRESET** ▲/▼ footswitches, or twisting the **SELECT** knob. Press the **GROUP** buttons or use an optional extension pedal to change groups quickly.

Under Preset Mode, you can still usually edit or switch On/Off any effect modules by press the **Effects Module** buttons, and change the functions of the **CTRL** pedal and **EXP** pedal. It is just like switching on or off stompboxes on the pedal board.

You can press and hold **EDIT/SAVE** button to save the changes, or switch to another preset to abandon changes.

Example:



This means Compressor, Amp Simulator, and Delay are turned On and in the signal chain. Others are Off.

Output Mode

You can output the sound from MG-20 to a variety of devices by selecting output modes. Using the right OUTPUT mode helps you get the best tone from MG-20.

Press **OUTPUT MODE** button, and use **SELECT** knob to select the device you want to output the sound from MG-20.

Stack Guitar In	Choose this one when you plug the MG-20 to the Guitar input of a stack.
Stack Power	Choose this one when you plug the MG-20 to the power amp of a stack. (Normally the RETURN of the FX Loop)
Combo Guitar In	Choose this one when you plug the MG-20 to the Guitar input of a combo.
Combo Power	Choose this one when you plug the MG-20 to the power amp of a combo. (Normally the RETURN of the FX Loop)
Waver Out	Output the sound from MG-20 to a mixer or PA system. MG-20's speaker simulator will be turned on.

NOTE: Output modes can be changed at anytime. Selecting the output mode is a universal setting that is not saved in preset.

Drum & Looper

MG-20 has a built-in Drum Machine that has 8x rhythm patterns and a Looper with 60 sec recording time.



Drum Machine

Control	Function	Control	Function
	To change drum patterns		To adjust drum volume
	To change drum styles		Start and stop drum
	To change tempo		Double-press to exit

Looper

Control	Function
	Adjust the playback volume of a loop
	Press this to record, play, and overdub; Press and hold it for 2 sec to cancel the last recording (undo), and press and hold it again for 2 sec to redo the recording that you just canceled. (See picture)
	Press it once to stop the loop; Press and hold it to clear all recording; Double-press to exit (quickly press the CTRL switch twice within one second).

During looping, you are free to exit to **Preset Mode** or **Edit Mode** by double-press the **CTRL** footswitch, change the guitar tone, and return to the **Drum & Looper** page to continue looping.

NOTE: You can use the drum patterns to guide your recording, but the Drum Machine and Looper are separate modules, so the drum part cannot be recorded in the Looper.

Mp3 Player

MG-20 has a built-in MP3 Player that allows you to play the music from the SD card. It supports MP3 music and most of the WAV and WMA music.

	Press this to enter the interface of MP3 Player. This is also the Play/Pause button.
	Previous song.
	Next song.
	Use A-B button to repeat a phrase of music. Press once to set the start point, press the second time to set the end point, and press the third time to cancel repeating.

The MP3 Player also allows you to change the speed of the music without changing the key. This is helpful when you want to slow down a fast lick for learning.



NOTE: You can set the **CTRL** footswitch as Play/Stop switch of the built-in MP3 Player.

(See: **CTRL/EXIT** Pedal Function Setting)

Tuner

Press the **PRESET** footswitch and **CTRL** footswitch at the same time to enter tuner page.



Adjust: A1 420-454Hz	Rel. Tuning	Fine	Mode: Chromatic, GT standard, Open A1, A2, G, C, D, C

In Tuner page, press **PRESET** footswitch for silent tuning. Press **PRESET** to change tuning modes. Quickly press **CTRL** footswitch twice in 1 second to exit.

Factory Restore

- Press **EDIT/SAVE** button and **HOME** button at the same time to enter **SETUP** page.
- Use **SELECT** knob to select **FACTORY RESTORE**, and press **EDIT/SAVE** button to enter.
- Press one of the **GROUP** buttons to toggle to **YES**.
- Press **EDIT/SAVE** to confirm restoring and exit.

NOTE: All user presets and settings will be restored to factory settings.

EXP Pedal Calibration

- Press **EDIT/SAVE** button and **HOME** button at the same time to enter **SETUP** page.
- Use **SELECT** knob to select **PEDAL CALIBRATION**, and press **EDIT/SAVE** button to enter.
- Follow these steps:
 1. Set the **EXP** pedal to fully heel-down position, and press **PRESET** ▼ footswitch.
 2. Set the **EXP** pedal to fully toe-down position, and press **PRESET** ▼ footswitch.
 3. Press the **EXP** pedal towards fully toe-down position with force, the LCD will show the threshold value.
The harder you press the pedal, the higher the value. Higher threshold value means you need to press the pedal harder to switch between Expression and Volume function of this pedal.
 4. Press **PRESET** ▼ to confirm the adjustment.
 5. If you are not satisfied with the adjustment, you can start over from step 1.
- Press **HOME** button several times to return to Preset Mode.

Language Setting, Version Information

- Press **EDIT/SAVE** button and **HOME** button at the same time to enter **SETUP** page.
- Use **SELECT** knob to select **LANGUAGE SETTING**, or **VERSION INFORMATION**.



- Press **EDIT/SAVE** button to enter.
- Follow the instruction on the screen.
- Press **HOME** several times to return to Preset Mode.

Specifications

- Sampling Frequency: 44.1kHz
- A/D converter: 24bit
- Frequency response: 20Hz-20000Hz ±1dB
- THD+N: <90dBu(<0.003%)
- Dynamic Range: 110dB
- INPUT: -20dB
- OUTPUT: +10dB
- Power: DC 9V/ ±4-6
- Dimensions: 373(L) x 210(W) x 80(H) mm
- Weight: 3.15Kg

Precautions

- Environment:
 1. Do NOT use MQ-20 in high temperature, high humidity, or subzero environments.
 2. Do NOT use MQ-20 in the direct sunlight.
- Please do NOT disassemble MQ-20 by yourself.
- Please keep this manual for future reference.

Accessories

- Owners manual
- DC 9V

* Specifications may change without notice.

NUX MG-20 EFFECTS LIST

MODULE	NAME	MODS	KNOB 1	KNOB 2	KNOB 3	KNOB 4	KNOB 5	KNOB 6	KNOB 7	KNOB 8
NOISE GATE	NOISE GATE		THRESHOLD	DECAY						
COMPRESSOR	REC COMP	MAX DYNA COMP	OUTPUT	SENSITIVITY						
EFFECT	CUSTOMER	MOD DISTORTION	OUTPUT	DRY						
	DET ONE	BOSS DS-1	LEVEL	TONE	DRIVE					
	B CREAMER	BOSS FSD	LEVEL	TONE	DRIVE					
	MODERN DIST	MODERN DIST	LEVEL	FILTER	DIST					
	HEAVY METAL	BOSS MT2	LEVEL	HIGH	LOW	DIST	MIDDLE	FREQ.		
	TUBE DRIVE	CHANDLER TUBE DRIVER	OUT	H	LO	DRIVE				
PREAMP	FUZZ	DUNLOP FUZZFACE	VOL UMF	FUZZ						
	MUTE IN	DI MUTE IN	VOLUME	TONE	SUSTAIN					
	JAZZ CLEAN	ROLAND JAZZ 120	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	
	BLACK FACE	FENDER DELUXE REVERB	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	
	MT TWED	FENDER BARRMAN 85	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	
	MT TWED	FENDER TWED DELUXE 603	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	
	DELUXE VIBE	FENDER TWIN REVERB	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	
	HIGH WATT	HAWK CUSTOM 100	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	CALL BRUSH	MESA BOOGIE MARK I	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	BRUSH	VOX AC30 TOP BOOST	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	CUT
	CLASSIC LEAD	MARSHALL SUPER LEAD 1369	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	FLICKER	MARSHALL JTM45	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
CABINET	80S CLASSIC	MARSHALL JCM800	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	80S TURBO	MARSHALL JCM800	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	MODERN HIGHGAIN	GOLDANO SLO 100	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	HEAVY HEAVY	FRANK STRID	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	80S TREND PLATE	MESA BOOGIE DUAL RECTIFIER	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	NEW METAL	CELESTION HENDERT	DRIVE	LEVEL	CABINET	MIC	BASS	MIDDLE	TREBLE	PRESENCE
	CALL 1X12	BOOGIE 1X12								
	TWED 1212	FENDER TWED DELUXE								
	BLACK 1X12	FENDER DELUXE REVERB								
	JAZZ 2X12	ROLAND JAZZ 120								
	BLACK 2X12	FENDER TWIN REVERB								
	BLUE 2X12	VOX AC30								
MICROPHONE	TWED 4X12	FENDER BARRMAN								
	TF 4X12	MARSHALL WITH T-75								
	V30 4X12	MARSHALL WITH V-30								
	GREEN 4X12	MARSHALL WITH GREEN								
	812 4X12	MARSHALL WITH 812								
	REOT 4X12	MESA BOOGIE 4X12								
	80TR 4X12	CUSTOM CUSTOMER 4X12								
	ST ON A30									
	ST OFF A30									
	DYNAMIC									
	CONDENSER									
	7-RANGE EQ									
EQ	PARAMETRIC EQ		100	200	400	800	1.5K	3.2K	6.4K	20K
	CHORUS	BOSS CH-3	LEVEL	DEPTH	RATE	MIX	LOW	HIGH	SUB. SW	TAP TEMPO
	STEREO CHORUS	BOSS CH-3	LEVEL	DEPTH	RATE	MIX	LOW	HIGH	SUB. SW	TAP TEMPO
	FLANGER	BOSS FL-3	MANUAL	DEPTH	RATE	RESO			SUB. SW	TAP TEMPO
	VINTAGE PHASER	VOX PHASE 90	RATE	DEPTH					SUB. SW	TAP TEMPO
	U VIBE	DUNLOP URB VIBE	VOLUME	INTENS.	SPEED	CHG. MS			SUB. SW	TAP TEMPO
	TRIMOLD		VOLUME	INTENS.	SPEED	CHG. MS			SUB. SW	TAP TEMPO
	ROTARY SWR		RATE	BALANCE	DIRECT				SUB. SW	TAP TEMPO
	VIBRATO		SPEED	DEPTH					SUB. SW	TAP TEMPO
	HARMONIST		MODE	KEY	HARMONY	BALANCE				
	DETUNE		SHFT L	SHFT R	MIX	LEVEL				
	ANALOG DELAY		TIME	FEEDBACK	VOLUME				SUB. SW	TAP TEMPO
DELAY	DIGITAL DELAY		TIME	FEEDBACK	VOLUME	TONE			SUB. SW	TAP TEMPO
	MODULATE		TIME	FEEDBACK	VOL UMF				SUB. SW	TAP TEMPO
	TAP ECHO	ROLAND RE-201	TIME	FEEDBACK	VOLUME	HEAD			SUB. SW	TAP TEMPO
	REVERSE		TIME	FEEDBACK	VOL UMF				SUB. SW	TAP TEMPO
	MAN DELAY		TIME	FEEDBACK	VOLUME				SUB. SW	TAP TEMPO
	ROOM		REVERB	DECAY	LEVEL	H. CUT				
REVERB	HALL		REVERB	DECAY	LEVEL	H. CUT				
	PLATE		REVERB	DECAY	LEVEL	H. CUT				
	WASH STANDARD									
	WASH									
	WASHBY									
	PARAMETER									
EFFECT PEDAL	MIN VOL UMF									

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THE FCC REGULATION WARNING (for U.S.A.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CE mark for European Harmonized Standards

CE Mark which is entitled to our company's products of Battery means the product is in full conformity with the harmonized standard(s) EN 61000-6-3:2007+A1:2011 & EN 61000-6-1:2007 Under the Council Directive 2004/108/EC on Electromagnetic Compatibility.



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